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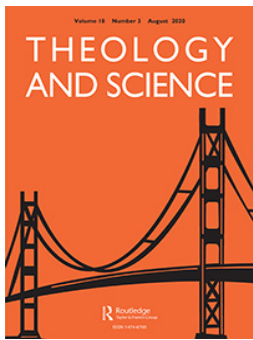
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Theology, Free Will, and the Skeptical Challenge from the Sciences

Aku Visala

ABSTRACT

Given how central free will and moral responsibility are for theology, Christian theologians should not remain at the sidelines when scientists and philosophers debate recent empirical results about human agency. In this article, the core notion of free will is identified with the agent's cognitive ability to exert control over his or her actions thereby making moral responsibility possible. Then three scientifically inspired arguments for free will skepticism are outlined: the argument from eliminativism, the argument from determinism and the argument from epiphenomenalism. The remainder of the article explores novel responses to these arguments and draws some theological implications from them.

KEYWORDS

Free will; theological anthropology; moral responsibility; the self; eliminativism; neuroscience; pluralism

The issue of free will is a core theological topic. It is like an octopus spreading its tentacles all around systematic theology, touching upon almost all Christian dogmatic *loci*. Free will is implicated in doctrines and discussions about God (God's will), human sin, grace and salvation as well as our relationship to the created world.¹ Due to its centrality, free will has also proved to be a divisive topic — a source of much debate between Christian denominations and theological schools.

Recently, free will has also been extensively discussed in the so-called science-and-religion dialogue. Here, the motivation has, for the most part, been to resist the sceptical conclusions about free will that some neuroscientists, geneticists and cognitive scientists draw from current experimental result. Scientists and philosophers often invoke recent neuroscientific and psychological results suggesting that humans exert less control over their mental life and actions as often assumed. This raises difficult questions about the extent to which people actually consciously control their behavior.

In this article, I want to identify the kinds of notions of free will that really matter to theologians and examine some of the scientific challenges posed against them. Given the fact that there is a significant amount of theologically motivated literature already out there that discusses various responses to skeptical worries, I will focus on introducing responses that have received very little attention in the theological literature. I will suggest that many skeptical worries could be ameliorated, if a move would be made from defending a dualistic agent causal libertarian views of free will to a more modest set of physicalistic and pluralistic views. In conclusion, I will point out some of the theological benefits of these novel solutions, including that they could help make sense of the very common experience of disunity of the self.

1. The Will and Its Freedom

It is not at all clear that theologians, philosophers and scientists are talking about the same thing when they use the term, *free will*. This is because both words “will” and “free” can take on multiple meanings. From the point of view of modern psychology, “the will” refers to multiple distinct cognitive processes. Psychiatrist George Ainslie writes:

...the term “will” gets applied to at least three somewhat independent functions: the initiation of movement (which corresponds to the Cartesian connection of thought and action—the function that Ryle found unnecessary), the ownership of actions, which gives you the sense that they come from your true self (the one that Wegner shows to be a psychological construction), and the maintenance of resolutions against short-sighted impulses.²

Confusion abounds if we run these three different notions of the will together. I will be calling the first notion of the will *sourcehood*. I will return to it later in more detail, but the basic idea is that the agent or some relevant mental content of the agent, like her beliefs, intentions and desires, brings about actions. When the agent’s mental content causes the agent’s actions instead of those actions having their roots outside the agent, we say that the agent is the source of her actions.

In the second sense, “the will” refers to the experience of being the source of one’s actions. Ainslie takes this to be a conscious sense of ownership of one’s actions, but I will call it the *source experience*. It is not just the experience of initiating an action, but the process of weaving one’s actions into a larger fabric of one’s self-image or self-representation.

I want to remind the reader why it is important to keep sourcehood and the sense of sourcehood distinct. For instance, it is not always the case that actual sourcehood is accompanied by the appropriate source experience. My beliefs, desires and intentions can be the source of my action without my having a conscious experience of being the source of that action. Moreover, some have argued that humans are *never* the sources of their own actions but they still often have the appropriate source experience.

Finally, there is the third notion of the “the will,” which is often used to refer to the mental process of being able to resist impulses and short-term desires. Let us call this *willpower*. Willpower has to do with the agent’s ability to set long-term goals and act on them despite various desires, reasons and other mental states providing conflicting reasons. An agent with a well-developed willpower is what ancient philosophers considered morally ideal: an *enkratic* person has achieved self-mastery over her impulses, emotions and conflicting desires and is able to act rationally, according to her best reasons.³

Now, we can move forward to the notion of “freedom” of the will. What does it mean for the will to be free? Let us begin from the role that the freedom of will is supposed to play in our theological thinking. These roles are many, to be sure, but they all have their sources in a theological view of human nature. Despite various theological differences concerning divine determinism, free will, grace and other such issues, Christian theologians maintain that human are, ultimately, created in the image of God. This entails that they are agents capable of moral responsibility, rationality and moral action. In addition, humans are also capable — despite their sinfulness — of responding to God’s Word in some way or another, that is to say, they are spiritual creatures.⁴ In addition to these considerations arising from theological anthropology, free will also has a significant role in theological debates about the nature of sin and the responsibility for evil in this world.

What about *Moral responsibility*? Christian theologians are committed to the view that humans are morally responsible for their actions in the eyes of God and other humans. So, the kind of freedom of the will the theologian is interested in must make sense of moral responsibility. Following this line of reasoning, many contemporary philosophers take “free will” as picking out a necessary condition for moral responsibility. More specifically, they attempt identify the conditions under which an agent can be taken as the source of her actions in such a way as to qualify her for moral responsibility for those actions.⁵ Without some kind of initiation of action, it seems rather difficult to blame or praise the agent from acting.

What about *Relationship to others and oneself*? Theologians maintain that God did not want to create automatons, or “blocks of wood,” as Martin Luther said. Instead, God intends humans to be moral agents with some measure of autonomy. This is taken to be extremely important, because a specific kind of autonomy is a necessary condition for the kinds of interpersonal relationships, which theologians hold in high regard. These include the God/human relationship as well as the various human/human relationships. Loving someone, for instance, seems to require a conscious commitment to certain act/attitude sets towards loved ones. Relationships of love are dependent on the agent’s will and commitment to long-term flourishing of the beloved. Without those commitments having their roots in the persons themselves, it is difficult to see how they could be considered as loving in any robust sense. It seems that love is something that is deeply rooted in the agent. Free will is also crucial for the agent’s self-relationship in moral and spiritual matters. Relational moral attitudes, like shame, guilt, repentance and forgiveness are grounded in free will. Again, if the agent were never the source of her actions, it would be very difficult to see, how the agent could ever adopt such attitudes towards herself. If the actions of the agent are not her doing, there seems to be no point in feeling guilty and asking for forgiveness.

What about the *Moral and spiritual life*? Free will is also crucial for many theological accounts of moral and spiritual life. A virtue-based account of moral life makes sense insofar as a person has some measure of conscious control over her character. In order to have any kind of virtue at all, an agent must be able to make choices and decisions between morally relevant courses of action. These actions, in turn, shape the moral character (beliefs, desires, emotions, attitudes and tendencies) of the agent.⁶ Similarly, while theological traditions differ as to the role of the human will in the process of sanctification, all traditions assume some kind of consciously initiated contribution from the agent in her spiritual life.

So, the question is this: how might the agent be the appropriate source of her actions so as to make moral responsibility, interpersonal relationships and moral and spiritual life possible? Contemporary philosophers often answer this question by insisting that this is possible, when the actions of the agent are “up to the agent.” This “up-to-usness” comes down to the agent having a specific relationship to her actions: they are initiated by the agent and have their roots in the agent, not in some outside factor or a cause. This is the fact that allows for moral responsibility and moral evaluation. I have so far been fleshing out the notion of free will that draws inspiration from what contemporary philosophers call *sourcehood-based approaches* to moral responsibility and free will.⁷ On this view, an action is up to the agent (has its sources in the agent) when the causes that bring about that action are independent, in some sense, from causes outside the agent. In

other words, either the agent or those mental states that agent genuinely owns bring about the agent's action.

Typically, sourcehood approaches invoke the idea of *control over action*. If an action is up to the agent, the agent has relevant control over that action. What might that be? Various control-based accounts have been offered. John Martin Fischer and others begin from the ancient notion that action is teleological, namely, it is always directed towards a specific end. That end provides a reason for why that action is undertaken. So, to control one's actions, the agent needs to be able to (a) recognize various reasons for acting (identify ends of actions) and (b) to be able to generate actions that reasons guide. Fischer calls this *reasons-responsiveness*. When an agent exhibits moderate reasons-responsiveness, we can hold her responsible for her actions.⁸

Philosopher Robert Kane represents another popular sourcehood-based approach. According to Kane, ultimate moral responsibility requires not only that the person acts rationally in response to reasons, but also that the agent herself is responsible for shaping her own character. An action is up to the agent when the action has its source in the agent's character (beliefs, attitudes, intentions) that is freely chosen. In other words, the agent must be able to shape her character in a way that is not determined by prior causes. Given this ability, agents become morally responsible for their characters by shaping themselves over time. They can develop virtues and vices and they can justifiably be blamed or praised for them. Only when the agent, not some external causes, brings about her character, can the agent be held responsible for it.⁹

Philosophers have also developed a type of sourcehood approach that does not invoke action control at all. For the lack of a better term, I will be calling these *attributionist* approaches. Instead of invoking action control or choice, the attributionist argues that the agent can be held morally responsible for those actions that express or represent the agent's attitudes and judgments towards others. Sometimes this is expressed in the following way: the agent is morally responsible for those actions that express the agent's *real* or *deep self* or that represent the *quality of will* the agent has towards other people. It does not matter if the agent has control over the actions or the character that produces them. It is enough that the actions under moral consideration can be attributed to the agent — that they “flow out of” the character, values and beliefs that the agent identifies as a part of herself.¹⁰

Another way of understanding the relevant control over action is to locate it within the choices and decisions the agent makes. An action is up to the agent when the agent can decide or choose to act or not to act. In other words, an action is up to the agent, when the agent has the ability to do otherwise than she actually did. It is useful to distinguish this from the various versions of sourcehood introduced above: let us call views that see the locus of control in the ability to do otherwise as *leeway approaches*.¹¹ These approaches are often motivated by our conscious source experience, our everyday phenomenology of choosing and deciding. It certainly seems to many human agents, that sometimes they make choices between alternative actions. At these moments, it seems as if there were alternative futures open to them. The future is like a garden of forking paths unfolding in front of choosing agents and their choices decide between forking paths. Hence, the *principle of alternative possibilities* emerges as a condition for moral responsibility: in order for the agent to act freely, she must have access to alternative possibilities at the moment of action.¹²

Despite their differences, all these approaches share a common core: there is an “I” or self that stands in a particular relation to some actions that can be attributed to her. Moral responsibility and morally significant attitudes require the existence selves that are sustained somewhat consistently over time — selves that exert some measure of control or choice over their actions and their character.

2. Three Arguments for Free Will Skepticism

Now that we have an idea of the kind of free will the theologian wants and some options in her disposal, we can examine more carefully the ways in which scientific results could cast doubt upon human agents actually having such free will. In a recent volume discussing scientific arguments for free will scepticism philosopher Christian List examines three arguments against free will that invoke scientific results. All arguments have their roots in the core notion of free will I discussed above. Free will, as I have suggested, requires a particular picture of agency and action — that selves (be they non-physical subjects or just bundles of mental states) stand in a relationship with the actions that they bring about. The skeptical challenges seek to undermine this picture by arguing that the self is “bypassed”: either the self is non-existent or irrelevant to the behavior of humans.¹³

2.1. The Argument from Eliminativism

Perhaps there is no such thing as the self that can play the role of controlling actions. In philosophy of mind, this view has become known as *eliminativism* and Patricia Churchland and others have represented it. The idea is, simply, that mental descriptions (involving beliefs, desires, etc.) are folk psychological notions that offer very little or nothing in explaining how the mind really works. Eventually such descriptions will be replaced by neuroscientific theories and explanations and these explanations will not include anything like “selves,” “beliefs” or “intentions.”

The eliminativist view is mostly motivated by the continuing advance of the neurosciences: given the fact that the neurosciences produce more and more accurate explanations of the mechanisms underlying everyday cognitive processes, the expectation is that some day *all* cognitive processes can be explained without remainder by the neurosciences.¹⁴ On this view, humans are physical mechanisms with physical parts, whose actions can be explained by invoking lower-level physical mechanisms.

A further assumption in the eliminativist position is that mechanistic explanations are incompatible with folk-psychological, intentional explanations. So, when the neurosciences progress far enough, folk psychological accounts of human selves and behaviors will simply become obsolete and become replaced by neuroscientific explanations.

Folk psychological assumptions, like the assumption that we are selves that persist and initiate actions, will also vanish eventually in this process. We might be creatures with some experience of selves or source experiences, but these are illusions. If there are no selves, there can be no free will that performs the role theologians want it to perform.

Among psychologists, this skeptical argument has its roots in a specific notion of scientific explanation and how it related to folk psychology. Psychologist John Bargh has argued that belief in free will prevents the progress of psychology as a science. Psychology is still in the grip of folk psychology, because it assumes that there is substantial self or the agent

that controls or initiates actions. The natural sciences should reject such explanations *a priori*: invoking the self as an explanation of behavior is like invoking God as a designer of organisms in biology. Teleological explanations of folk physics and folk biology have given away for mechanistic explanations in physical and biological sciences. The same, according to Bargh, will happen in psychology and folk psychology will give away to mechanistic explanations. This will be the end of our folk psychological concepts, like selves, beliefs, and intentions.¹⁵

Similarly, psychologist Daniel Wegner argues that belief in the self is a form of magic, unscientific superstition:

The real causal sequence underlying human behavior involves a massively complicated set of mechanisms. Everything that psychology studies can come into play to predict and explain even the most innocuous wink of an eye, not to mention some of the more lengthy and elaborate behaviors of which humans are capable. Each of our actions is really the culmination of an intricate set of physical and mental processes, including psychological mechanisms that correspond to the traditional concept of will – in that they involve linkages between our thoughts and our actions. This is the empirical will. However, we do not see this. Instead, we readily accept the far easier explanation of our behavior that our Houdini-esque minds present to us: We think we did it.¹⁶

Wegner admits that the source experience is very common among humans, but at the same time, we know that it simply cannot be true. It is analogous to a visual illusion: we know it to be false but we cannot shake the illusion. Psychological science, however, can never accept any kind of magical causation, where “selves” and “intentions” cause actions. Behind our source experience, there can be nothing else than a set of neural mechanisms — very complex one’s — that generate our behaviors.¹⁷

2.2. The Argument from Determinism

This argument is directed against those views of free will that require the principle of alternative possibilities (leeway approaches) or ultimate sourcehood, where the agent must have control over her character such that it is independent from prior causes. There are two main arguments here. The first appeals to the physical sciences in general: our best physical science points towards our physical reality being ultimately deterministic. That is to say: that the next complete state of the universe following the present complete state of the universe is made necessary by the present state of the universe.

The determinist argument invokes the sciences of the mind in particular. Even if our universe were not deterministic in this way, it could very well be the case that those psychological and neurological systems that make our will and action possible are “near-deterministic,” namely, work in such a way as to rule out alternative possibilities and ultimate responsibility. Incidentally, invoking divine determinism, not just physical determinism, can generate this challenge all the same: if divine determinism is true, there are no human actions that have prior causes that are outside human control (God’s will).¹⁸

2.3. The Argument from Epiphenomenalism

Finally, there is the argument that human selves (be they substances or mental states) do exist, but they do not stand in the proper kind of role with respect to their actions. In other

words, crucial mental aspects of ourselves, like our beliefs, intentions and goals, are, in reality, disconnected from our actions. Instead of selves initiating and controlling actions, human beings construct their self-representations on the basis of actions that are initiated with very little input from their self-representations. If this is the case, our consciously accessible mental states make very little difference in terms of our actions.

The argument from epiphenomenalism is often motivated by experimental results. First, there is evidence suggesting that our sourcehood and source experience can come apart. Wegner, in particular, has argued that our source experience is probably mistaken. In experimental conditions, source experiences can be induced in subjects without the subjects actually having sourcehood. Similarly, there is evidence that we can initiate actions without having the accompanying source experience. What Wegner concludes is that we are never in a position where we actually initiate actions. Instead, their sources are outside our conscious selves (or mental states we have conscious access to) and we are never in control of our actions.¹⁹

Michael Gazzaniga, a cognitive neuropsychologist, argues that consciousness in general has very little role in action generation. Conscious selves are constructs of the brain and they are based on the kinds of actions that the individual performs. But instead of selves being sources of actions, it is the other way around: actions are generated by non-conscious mechanisms and conscious selves are narrative creations that *post hoc* incorporate actions into a set of more or less coherent self-representations.²⁰

Wegner and Gazzaniga often invoke the neuroscientific studies of Benjamin Libet. Libet and others following him have conducted various experiments about the relationship of conscious initiation of action and brain events. Without going into the details, Libet-style experiments involve the measuring of brain activity in some way (e.g. EEG, fMRI) and its timing in relation to the conscious decision to act. The act measured in the experiments is usually something like basic motor movement, like flexing of one's hand, such as in the original Libet experiment.²¹ The standard interpretation of these results is that before the conscious decision to act, the brain has already prepared in some way for the decision. What Gazzaniga and Wegner conclude from this is that it is the neural activation that is causing both the action and the conscious decision to act. In other words, unconscious neural causes cause both the initiation of the action (sourcehood) and the accompanying source experience. Thus, source experience itself is not really an active link in the causal chain leading to action.

The evidence that cognitive psychologists have amassed about thoroughgoing *automaticism* in human cognition also impresses many critics of free will. It turns out that many of human cognitive systems work without conscious control and input. Indeed, their workings are what philosopher Jerry Fodor calls *doxastically impenetrable*, namely, permanently outside conscious access. In addition, automaticism is also supported by social psychology, where it has long been acknowledged that the individual's behavior often depends on non-conscious social cues. Social psychologists have created a number of ingenious experimental settings (like Milgram experiments and the versions of the Stanford Prison experiment) in order to show the extensive, non-conscious influence of the social context, especially in the case of moral action. In other words, we are being influenced by our environment in ways, that are, for the most part, impervious to our conscious mind. Because of such findings, debates about conscious action control as well as automated versus conscious processing rage on.²²

3. Intentional Agents and Self-Governing Systems

It is clear that I am unable in this context to provide a thorough discussion of the sceptical arguments outlined above. Instead, I will briefly mention some non-standard responses that have received very little attention in the theological literature.

As far as I see it, theologically motivated responses to the argument from eliminativism have employed two distinct strategies. The first strategy is to maintain that if physicalism about persons and naturalism in general is assumed, then the eliminativist conclusion is indeed correct. But because we know that there are minds and persons, the Christian should adopt the opposite stance: abandon physicalism about personhood. On this view, selves are non-physical substances that are not identical with any part of the person's body or brain. In addition, selves have a special power — agent causation — to initiate actions that are guided by reasons. Such a view is required in order to defend the existence of a very robust sense of sourcehood: the actions of the agent are brought about directly by the agent (not, for instance, the mental states of the agent). Let us call this the dualistic strategy.²³

The second strategy seeks its answers elsewhere. Warren Brown and Nancey Murphy, for instance, have argued that mental states associated with selves are always instantiated by some brain states but they nevertheless have “causal power” of their own. Because they are emergent properties of our brains, they can have top-down influence on lower-level processes. As such, we need not assume the existence of non-physical souls or minds. Instead of a robust agent-causal account of free will, Murphy and Brown accept something like reasons-responsive theory of moral responsibility: human beings are capable of controlling their actions, since actions are generated on the basis of reasons.²⁴

In what follows, I will briefly highlight two lines of argument that could be used in conjunction with the second — physicalist — strategy. Recall, how the eliminativist invokes the possibility of neuroscientific explanations replacing folk psychological explanations. The aforementioned philosopher Christian List responds to this by arguing that “ascriptions of intentional agency indispensable for making sense of the social world, in everyday life and in the social sciences alike.”²⁵ We should adopt the best explanation of human behavior we possibly can, but in most cases eliminativist explanations simply fail. We have any idea how neuroscientific explanations could replace folk psychological explanations.

Folk psychological explanations are used widely in the sciences. Various social sciences, such as political science and history, and even economics successfully employ folk psychology. The assumption that human beings are intentional agents, act in goal-directed ways and their behavior can be explained by invoking their beliefs and desires and intentions has a firm place in many scientific disciplines. Neuroscientific explanations, so far, cannot do the work of folk psychology in the sciences. This does not mean that neuroscience and cognitive science have nothing to contribute:

... insights in neuroscience are best understood as *complementing* intentional explanations in the human and social sciences, not as *replacing* them. As so, I think, human beings and other complex animals pass the test of intentional agency. For many explanatory purposes, they are best understood in intentional terms. Taking an intentional stance towards them is not merely optional but mandatory.²⁶

List motivates this claim further by invoking a principle that defenders of critical scientific realism (and critical theological realism) know very well. This is the claim that if a certain scientific theory works by providing good predictions, for instance, this gives a reason to take the unobservable factors that the theory postulates as real. When applied to the issue at hand, the usefulness of folk psychology in both everyday life and various scientific domains points to the truth of human intentionality: there are indeed mental states, such as beliefs, intentions and desires and they causally contribute to human action.

List makes a very important point — a point that many forget in their discussions on neuroscience and free will. The point is simply that intentional explanations of human behavior are deeply entrenched in many academic disciplines that produce reliable theories and explanations of human actions. Attempts to remove them or replace them with neuroscience or even cognitive science have failed (so far). According to List, no neuroscientific or any lower-level theory of the mind will replace folk psychology, because mental properties are *multiply realizable*, namely, many different physical configurations of brains and bodies can instantiate the same mental state.²⁷ As a consequence, explanations based on physical descriptions of the brain and intentional explanations of folk psychology do not do the same work.

List's argument, if successful, provides us a strong reason to hold onto intentional agency. Perhaps the theologian might want something more in order to guarantee moral responsibility and free will — especially a more robust notion of the self. In a recent book, philosopher Jenann Ismael defends the existence of selves. Ismael is especially interesting in how various developments in physics and complex systems theories can make sense of selves as sources of actions.²⁸

Ismael admits that selves are a necessary component of our notions of free will and moral responsibility. We employ the notion of the self whenever we are required to make a distinction between voluntary and involuntary actions. Voluntary actions are those that have their sources in the agent's self (sourcehood). In order to play this role, selves must have, according to Ismael, the ability to shape the overall system of which they are a part, and there must be some level of internal unity or integration to them. If we take human agents as *self-governing* systems, these requirements can be met.

Ismael distinguishes between *self-organizing systems* and self-governing systems. Self-organizing systems are aggregates of their parts and all behavior that emerges from them is based on the activity of their parts. Such systems, like a group of fish, have no central command. Against this, in self-governing systems

there is both an epistemic standpoint that synthesizes the collective knowledge and a system-wide deliberative standpoint that plays some role in guiding the activity of the system in which the collective good appears explicitly as a term in the utility calculation.²⁹

Ismael likens such a system to a society that has public institutions and laws or an army with centralized leadership as opposed to self-organized bands of raiders. Public institutions and army leadership do not simply hand down orders unilaterally. Instead, they are there as tools and mechanisms that help to form collective intentions and goals.

Ismael admits that philosophers and others have had the tendency to assume that we humans are purely self-governed systems, where there was a “central command,” like reason or consciousness, that simply delivered orders to lower-level systems. Given

what we know, it is better to see human behavior driven by both self-organization and self-government. Ismael writes:

We have come to appreciate that there's a great deal of human behaviour that is the product of self-organization. ... But not all human behaviour is the result of self-organization. Some of it is the product of the top-down control of self-governance. The details of how self-governance is implemented in the brain are not fully understood, but no one ... denies that there is the genuine forging of a collective deliberative standpoint in the human psyche that can play some role in the determination of behaviour.³⁰

Ismael continues to suggest that human selves could have the same kind of unity than various kinds of self-governing collectives. From various inputs, like desires, goals and thoughts, and ways of processing them into a coherent whole arises a certain kind of unity. We can say that well run companies buy something, armies act intentionally and nations sign treaties. It makes sense to talk this way even when companies, armies and nations consist of individuals with mutually incompatible goals and roles. Similarly, the human self is not a substance or a single mechanism in the brain, but “there is some one making the choice, some one exercising control, some one making judgments and undertaking commitments. The someone here is not an individual substance or material particular lurking inside the system, it is a point of view ...”.³¹ As Ismael admits, the details of her proposal still need to be ironed out.

4. Deterministic Models and Mysterious Gaps

As a response to the argument from determinism or “near determinism,” the standard response so far has been what I will call “identifying the gap” — strategy. This attempts to locate some causal connections either at the lowest physical level (say, quantum effects) or at the level of the brain that leave room for indeterministic causation. This is the gap. After the gap is identified, some mental states or other such state associated with the self are introduced that successfully operate in this gap.

Philosopher John Searle illustrates this strategy very well. According to Searle, humans have free will, which means that they have the ability initiate their own actions consciously. They can choose to act on the basis on some desires and reasons and reject others. They can choose, based on rational considerations, inhibit their short-term desires for some long-term benefit. Without such self-control or self-governance, human agents could not be held responsible for their actions and characters. In order for such control to be possible, there must a gap between desires and beliefs on the one hand, and the action on the other. The gap is where the conscious self operates: it assesses different reasons for actions, evaluates desires and ultimately decides on which reasons and desires the agent acts upon. In order for this to be possible, determinism at the brain level must be false. If “neurodeterminism” were true, there would be no gap for the conscious self to operate on the brain, and therefore no free will.³²

Many critical comments could be made of Searle's very robust agent-causal account of free will. There are arguments in the literature, which (convincingly in my mind) demonstrate that alternative possibilities are not required for moral responsibility.³³ In this sense, moral responsibility might be compatible with the kind of psychological determinism, where prior mental states of the agent determine the agent's subsequent action. However, let us assume, with Searle, that psychological indeterminism is required: in

order for the action of an agent to be free, that action cannot be necessitated by prior mental states of the agent. This is often how the agent-causalist understands the situation: in order for the self to cause actions, those actions must be underdetermined by prior mental states of the agent. In order for this to be possible, Searle thinks that there must be indeterminacy at the level of the brain.

I want to briefly mention some proposals that do not have such a requirement. Perhaps we can have a gap at the psychological level without a gap in the neuronal level. Even if the underlying neuronal mechanisms operated deterministically, perhaps we can still admit that psychological causal relationships are indeterministic. There could be enough indeterminism at the psychological level to allow for robust alternative possibilities and self-governance. One possible way to arrive at this conclusion is to direct attention to how neuroscientific and cognitive models of the human mind actually work. According to philosopher Steven Horst, we misunderstand these models (indeed, all scientific models), if we assume that they entail any kind of determinism.

Consider the argument for neurobiological determinism. First, brains are physical systems. Second, all operations of physical systems are determined by the basic physical components of those systems. Thus, brains, the source of all our decisions, thoughts and feelings, are determined by the operations of basic physical components and those operations are deterministic in nature.

The problem with this argument, according to Horst, is that it involves an idealized interpretation of neuroscientific models and the laws they posit. In reality, the most plausible interpretation is that neuroscience provides models that are, to some extent, abstracted away from what actually happens in the brain. They are, to use Horst's favorite metaphor, maps drawn for a certain purpose. As such, they idealize many factors and leave others out. Neuroscientific laws — no matter how complete they are — have many *ceteris paribus* conditions. Thus,

... one can embrace the truth of individual laws, or indeed any set of such laws, without any implication of determinism, because the idealization conditions of each law are essentially open-ended. ... Likewise, psychological laws, as idealized laws, do not claim to govern all possible behavior, but only extract a partial list of real invariants in psychodynamics. In no way are further lawful invariants or voluntary anomic spontaneity excluded.³⁴

Neuroscientific models help the neuroscientist to navigate the world of neurons and synapses, but we cannot insist that they take into account all possible influences on brain mechanisms. It follows from this that we can never really infer from actual neuroscientific models to the conclusion that brain mechanisms are determined only by the basic physical components of the system or that the components actually work deterministically.³⁵ This, in turn, undermines the second premise of the argument for neurobiological determinism.

If Horst and his pluralism of scientific models are correct, we can preserve the indeterminacy of the psychological level. List has more specific ideas as to how this could work out. His main goal is to preserve the robust ability to act otherwise.³⁶ This requires indeterminism at the level of the psychology of the agent, but not (as is commonly assumed) indeterminism at the level of the brain.

List again invokes the notion multiple realization: one set of psychological states can be realized by a number of different physical states. If this is true, it follows that we cannot

infer from physical determinism to the truth of psychological determinism. Psychological descriptions of the mind do not map onto specific sets of physical descriptions of brain states.

The coarse-grained nature of the psychological level opens up the possibility that the state of the world as specified by that level may be consistent with more than one sequence of events, even if there is physical determinism. In particular, a psychological-level state is consistent with every sequence of events that is supported by one of its possible physical realizations. ... As long as some of the possible higher-level sequences of events correspond to different courses of action, it follows that more than one course of action is *possible for the agent*. In short, the totality of facts at the psychological level up to a given time may leave more than one future course of action open for an agent.³⁷

It follows from this that there could be psychological indeterminism without physical indeterminism. One could make the same point in terms of *levels of nature*. Some descriptions of nature involve laws and theories that entail determinism: some current interpretations of contemporary physical theory involve determinism, for instance. However, this does not mean that other levels of description entail determinism.

Finally, List again invokes the idea that deterministic explanations of human behavior have not worked in higher-level sciences, like social sciences, psychology and economics. What actually happens in these sciences is that they attempt to explain why people tend to behave in certain ways rather than others when facing alternative possible actions. They do not claim that people, in fact, do not choose or decide anything. Non-intentional explanations of human actions involving, for instance, genes, social forces and other general tendencies, are probabilistic explanations; they do not involve deterministic causation.

Probabilistic explanations explain some general patterns and features of human behavior without replacing folk-psychological explanation. List claims that, “we would not even know where to begin if we tried to explain human behavior without assuming that people face genuine choices, with several options in front of them.”³⁸ Psychological indeterminism is assumed by rational choice theory in economics and many decision-making theories in cognitive psychology. Given this, the critical realist principle supports indeterminism at the level of the agent’s psychology: the fact that it is assumed by working scientific theories, we are *prima facie* justified in believing that it is indeed the case.

If these replies are successful responses the argument from determinism, it seems that there is no need to seek for a gap at the brain level, like Searle and many others do. The brain could operate deterministically but various different psychological descriptions would nevertheless be compatible with this fact. As a consequence, we look for the gap at the wrong place, if we focus on neural-level descriptions.

5. Effective Intentions

The argument from epiphenomenalism comes down to the issue of *mental causation*. The question is whether there is causal connection between the agent or her mental states and her actions so as to make moral responsibility possible. Following the two accounts of selves I identified above (dualist and physicalist), theologically motivated responses to the argument have taken two predictable lines of response.

According to the first strategy, in order for selves to play a role in generating actions, those selves must be non-physical, but also capable of acting on the physical world.

Without such selves, selves and their mental states would only be a part of an interrupted and flowing causal network. As such, they could not be free in the way free will requires: independent from prior causes. Only a robust version of agent causality in conjunction with dualism will give the required sourcehood needed for ultimate moral responsibility. Opposed to this, non-reductive physicalists have resisted agent-causality and substantial selves. They have attempted to provide an account where rational control of action is possible in a physical world.

A significant amount of literature has emerged in response to the argument from epiphenomenalism. The conclusion of the sceptical argument is far from being generally accepted. The question is the interpretation of the empirical results we have. Many have challenged the standard interpretation of Libet-style experiments and the whole project of attempting to identify the exact moment of conscious action initiation. Philosopher Neil Levy, for instance, points out that neuroscientific experiments of the timing of the source experience only measure a very small set of source experiences — the experience of initiating an action. When the experience of initiating an action is only found after some relevant brain event, the sceptic concludes that the action in question was brought about by factors independent from consciousness.

Levy argues, correctly in my view, that there is no reason to think that a conscious experience of *initiating an action* is needed for sourcehood after all.³⁹ Most stereotypical free actions are such that conscious experiences of initiating those actions are missing. Consciousness might not even be involved in their initiation at all. Nevertheless, such actions fall under our intentions, goals and desires, which are consciously accessible, identifiable and regulated by the agent. Agents can control those intentions at some point in time or another, without having the source experience of initiating specific actions. As a consequence, Libet-style experiments fail to show that conscious mental states are disconnected from actions.

Philosopher Alfred Mele has produced most comprehensive critical analyses of Libet-style experiments available so far. Mele points out that in these experiments the actions of the subjects are rather simple, motor behaviors, like flexing one's hand. Mele argues that such "actions" are quite different from complex moral actions that require significant deliberation. So, even if it turns out that we lack conscious experience of initiating simple motor behavior, this says nothing about the role of consciousness in complex moral decisions.⁴⁰ New empirical evidence can also be invoked in support of Mele's argument. Some experiments show that the readiness potential of the motor cortex tracked in Libet's experiments is not even triggered in the context of complex, deliberated decisions. These results suggest that conscious, deliberative decision might employ different brain mechanisms than simple motor behavior.⁴¹

Regarding the automaticity challenge, there are many psychologists, who see a significant role for consciousness in behavior. In a review of empirical evidence, psychologist Roy Baumeister and others suggest that consciousness plays multiple roles in regulating actions: it integrates outputs of various, distinct cognitive systems; it makes possible the agent's behavior to be influenced by cultural and social input; it is crucial for future planning and simulation; finally, it is crucial for adjudicating between alternative courses of action. They conclude, that

The evidence for conscious causation of behavior is profound, extensive, adaptive, multifaceted, and empirically strong. Recent criticisms have questioned the efficacy of conscious

thought for direct control of behavior. But these criticisms are largely irrelevant to the possibility of offline and indirect effects on later behavior, which constituted the bulk of the present findings.⁴²

Here they make the point (that Mele and Levy made above) that conscious mental states can function as regulators of actions even while there is evidence that consciousness does not often function as the initiator of actions.

Levy has also defended the role of consciousness in action generation. We should not equate consciousness with the source experience of initiating actions. Automaticity is widespread in human cognition in the sense that actions are seldom initiated by direct conscious decision to act. However, consciousness has a number of other, vital control functions. With the help of the Global Workspace theory of consciousness, Levy argues that consciousness contributes to flexible action generation by broadcasting information across multiple cognitive systems. There is a clear distinction between conscious and non-conscious behavior: non-conscious behavior might be enough for some circumstances, but eventually it will be too inflexible. A conscious cognitive system is much more flexible in taking into account various kinds of circumstances (environment, body, culture, etc.).⁴³ This view of the role consciousness fits in very well with Ismael's account of the self I examined briefly above. It is consciousness that provides the system the ability for self-governance: it integrates information from otherwise distinct system and forms a regulative structure. Furthermore, it matches very well with sourcehood-based reasons-responsive account of moral responsibility I mentioned. Here, consciousness is the mechanism that provides flexible access to many kinds of reasons for action.

Finally, there is a significant body of evidence suggesting that conscious decision make a significant difference to peoples' behavior in everyday life. In a meta-analysis of almost a hundred studies, psychologist Peter Gollwitzer and others found that when subjects committed themselves to various future actions, their behaviors tended to differ from those who did not make the same kind of commitment.⁴⁴ So, it seems that what people decide to do clearly matters for their actions.

6. Epiphenomenalism Again

Let me say a few words about the argument for epiphenomenalism from a philosophical point of view. Even if empirical evidence will not yield the result of epiphenomenalism, perhaps a philosophical argument might.

Usually, philosophers invoke the idea of causal closure of the physical world and the impossibility of mental causation to defend it. Consider the famous *causal exclusion argument for physicalism*.⁴⁵ First, the world is a physical system and it is causally closed (its events are determined by what happens at the lowest physical level). Second, mental causation entails that mental states make a causal contribution to actions in a way not determined by underlying physical states. So, either the world is not causally closed system (and something like dualism about minds is true) or there is no such thing as mental causation. Without mental causation, the self or its mental states cannot bring about actions in the way that free will requires.

List's discussion of the exclusion argument is rather detailed and I cannot describe it here. Suffice it to say, that he denies the account of causation and the sufficiency of the

lowest-level description driving the first premise of the exclusion argument. He offers three reasons for this. First, it is not at all clear that there even is “a fundamental, basic” level of physical causation. The physical world we find in the sciences seems to get smaller and smaller. It is, scientifically speaking, an open question whether a fundamental level is ever found. However, if the causal completeness thesis is correct, the whole notion of causation depends on the existence of a fundamental level. It would be rather strange if the quite everyday notion of causation were to depend on this scientific hypothesis.

Furthermore, List argues that even if there were a fundamental physical level of description, there is no guarantee that our notion of causation would make any sense there, as we can see from a number of discussions on quantum physics. Finally, List invokes the existence and benefits of all the sciences that study higher-level causal relationships, like social and behavioral sciences as well as economics. It seems that these sciences at least sometimes manage to answer questions such as: why economic crashes happen, why some societies thrive and why do some people get Alzheimer’s. If this is the case, they have identified stable causal connections between various events — connections that are (at least in practice) impossible to describe in terms of fundamental physical interactions.⁴⁶

This last point is important for understanding what causation is. List argues, among many other philosophers, that causal explanations are answers to “what if things had been different” — questions.⁴⁷ In other words, when we seek a causal explanation for an event, we seek an explanation that provides the most relevant *difference-making* factor in the situation: “When we engage in causal reasoning, we want to know which actual or hypothetical interventions in the world would make a difference to which effects.”⁴⁸ Now, in order to defend mental causation, we need to defend the claim that that the mental states of the agent are, at least in some cases, the most significant difference-making factors with respect to their actions.⁴⁹ List thinks that this can, in fact, be demonstrated.

The case of mental causation of human action is analogous to the independence of the social and behavioral sciences from physics. Social and behavioral sciences have identified stable difference-making relationships at higher-levels and these relationships cannot be described or reduced to physical descriptions, because they are multiple realizable. Similarly, human mental states can be shown to be the most significant difference-making factors in many human behaviors:

It is a person’s intentional mental states that are normally the difference-making causes of the person’s actions, not the underlying physical states of the brain and body. And this is entirely compatible with recognizing that mental states are physically realized at the level of the brain. It is just that realizing brain states do not themselves qualify as difference-making causes of the resulting action.⁵⁰

The reason why underlying brain states cannot play the role of difference-making causes is that, in normal cases of action, they do not clearly map onto a one specific set of mental states. This is because of the aforementioned multiple realization. By specifying some set of brain states, we cannot infer to a set of psychological states, or vice versa. It follows from this, that brain-level descriptions are often too specific to function as explanations of individual actions. So, intentional, folk psychological explanations of human action still are, in many cases, the best way to explain human action. This gives us a good reason to think

that there indeed are causally efficacious intentions and mental states and that the argument from epiphenomenalism is false.

7. Conclusion

So, the three arguments for free will skepticism — the arguments from eliminativism, determinism, and epiphenomenalism — are far from conclusive. Free will, even robust notions of the alternative possibilities conditions, might be salvageable. From the responses, a certain picture of human willing and agency is beginning to emerge.

I submit that such a picture of free will could, when developed further, play the role that theologians require free will to play. It could make moral responsibility possible, at least in the sense of sourcehood and reasons-responsiveness. I see no reason why it would rule out interpersonal relationship, deep commitments, and development of virtues as well as internal moral life. The emerging picture has the additional benefit for being more compatible with the results of the sciences than a robust dualism combined with agent-causation.

In order to guarantee action control required for moral responsibility and other theological goods, there is no need to posit a non-physical, substantial self that directly causes actions that underdetermined by prior causes. We can conceive of the self as emerging from the cognitive processes of the human brain and still have the appropriate kind of control required for control over action. Moreover, we have suggested that even robust alternative possibilities conditions could very well be compatible with determinism at the level of the physical brain.

Finally, the picture would make sense of the extensive empirical evidence about automaticity in human cognitive functioning without undermining the possibility of control. Indeed, it would realistically highlight how we humans are fragile creatures: our brains, environments and histories often influence our actions — one could even say that our actions often depend on causes that are ultimately outside our control. The last point is, for me, especially attractive, because it could make sense of various well-known moral and psychological phenomena better than the simplified agent-causal picture.

If we think of our selves as perfectly unified substances without physical parts (like dualists do), we are left with no explanation of the often-experienced *disunity of the self*. Eleonore Stump's work on suffering and atonement, for instance, highlights the Thomistic idea of sin as internal fragmentation of the will and its relationship to other cognitive faculties. Humans have conflicting desires and their orientation towards their actual good is hindered by their increasing tendency towards wanting power and pleasure. What original sin does is that it infects the will with such desires and inclinations. In order to be unified with God, a human person must have her will healed so as to direct it towards what is really good and integrated with other intentions and desires. The process of justification and sanctification is what is supposed to achieve this aim of healing the human cognition from the effects of sin.⁵¹

If the self can be more or less unified, we can make sense of the idea that free will is something that comes in degrees. The more internally consistent the agent cognitive capacities are and the more they are directed towards the good the more free her will and actions are. This is because the more internally integrated the agent's self is the less there is conflict and competition between various desires, goals, plans and intentions.

The struggle for freedom would be somewhat analogous to the struggle for moral virtue and against moral vice. In this sense, ultimate free will is the goal rather than a starting point of human development. Ultimate free will is the state where all the internal fragmentation has been overcome and the whole psyche of the human agent is centered on what is really good.

Horst's and List's pluralistic account of the sciences could also be very useful for theology. It is not difficult to see how it could be used to defend the possibility of divine action, for instance. We would be freed from the compulsion on trying to find gaps at different levels, especially the fundamental physical level (say, quantum divine action theories), where we could then place God's action in the world. The further question is whether this pluralism could provide tools for divine determinists for defending free will. So far, divine determinists have constructed their defenses such that there is no need for robust alternative possibilities at the psychological level. However, the innovation of List and others might provide an alternative option: does it make sense to say that while God determines basic physical level events, he does not determine psychological level events? This is an option that so far has not been examined in detail.

Notes

1. For an overview of central issues, see Kevin Timpe, *Free Will in Philosophical Theology* (New York: Bloomsbury, 2014).
2. George Ainslie, "Thought Experiments that Explore Where Controlled Experiments Can't: The Example of Will," in *Distributed Cognition and the Will*, ed. Don Ross and David Spurrett, et al. (Cambridge: The MIT Press, 2007), 170.
3. Willpower has also been extensively studied in contemporary psychology. See, e.g., R. F. Baumeister, D. M. Tice, and K. D. Vohs, "The Strength Model of Self-Regulation: Conclusions From the Second Decade of Willpower Research," *Perspectives on Psychological Science*, 13:2 (2018), 141–145. <https://doi.org/10.1177/1745691617716946>
4. For different accounts of imago Dei, see Marc Cortez, *Theological Anthropology: A Guide to the Perplexed* (London: T & T Clark, 2010).
5. See, e.g., Kevin Timpe, *Free Will: Sourcehood and Its Alternatives*. 2nd ed. (New York: Bloomsbury, 2013), 9.
6. E.g., Timpe, *Free Will in Philosophical Theology*, 25–29.
7. Kevin Timpe, "Sourcehood vs. Leeway Conceptions of Free Will," in *The Routledge Companion to Free Will*, Kevin Timpe, Meghan Griffith and Neil Levy (New York: Routledge, 2017), 213–224.
8. See, John Martin Fischer and Mark Ravizza, *Responsibility and Control. A Theory of Moral Responsibility* (Cambridge: Cambridge University Press, 1998).
9. Robert Kane, *The Significance of Free Will* (New York: Oxford University Press, 1998).
10. These approaches have their roots in Peter Strawson's work, but contemporary discussion has moved far beyond it. See, e.g., Nomy Arpaly, *Unprincipled Virtue: An Inquiry Into Moral Agency* (Oxford: Oxford University Press, 2003); Angela M. Smith, "Responsibility for Attitudes: Activity and Passivity in Mental Life," *Ethics* 115:2 (2005), 236–271.
11. Philosophers have only recently drawn the distinction of these two approaches clearly. See, Timpe, *Sourcehood vs Leeway conceptions*, 2017.
12. Peter van Inwagen, *An Essay on Free Will* (New York: Oxford University Press, 1983), 8.
13. Christian List, *Why Free Will Is Real* (Cambridge: Harvard University Press, 2019), 31–48.
14. See, e.g., Patricia Churchland, *Touching a Nerve: The Self as Brain* (New York: W&W Norton, 2013). Eliminativism has sparked an extensive debate. See, e.g., Robert McCauley ed., *The Churchlands and Their Critics* (Oxford: Wiley-Blackwell, 1996).

15. John Bargh, "Free Will Is Un-natural," in *Are We Free? Psychology and Free Will*, ed. John Baer, James Kaufman, Roy Baumeister (New York: Oxford University Press, 2008), 128–154.
16. Wegner 2004, 653. Daniel Wegner, "Precis of The Illusion of Conscious Will," *Behavioral and Brain Sciences* 27 (2004), 653.
17. Daniel Wegner, "Self Is Magic," in *Are We Free? Psychology and Free Will*, ed. John Baer, James Kaufman, Roy Baumeister (New York: Oxford University Press, 2008), 226–227. Some philosophers have also defended the non-existence of selves. See, e.g., Thomas Metzinger, *Being No-One: The Self-Model Theory of Subjectivity* (Cambridge: The MIT Press, 2004).
18. Divine determinism can be defined in various ways. I will settle for a very general and permissive definition. See, Peter Furlong, *The Challenges of Divine Determinism: A Philosophical Analysis* (Cambridge: Cambridge University Press, 2019).
19. Daniel Wegner, *The Illusion of Conscious Will* (Cambridge, MA: The MIT Press, 2002).
20. Michale Gazzaniga, *Who's in Charge? Free Will and the Science of the Brain* (New York, NY: Harper Collins, 2011).
21. For classical Libet experiments, see Benjamin Libet, "Unconscious Cerebral Initiative and the Role of Conscious Will in Voluntary Action," *Behavioral and Brain Sciences* 8 (1985), 529–566. For a more recent Libet-style experiments, see Soon, Chun Siong et al., "Unconscious Determinants of Free Decisions in the Human Brain," *Nature Neuroscience* 11 (2008), 543–545.
22. See, e.g., John Baer, James Kaufman, and Roy Baumeister, eds., *Are We Free? Psychology and Free Will* (New York: Oxford University Press, 2008) and Andy Clark, Julian Kiverstein, and Tillman Vierkant, eds., *Decomposing the Will* (New York: Oxford University Press, 2013).
23. Such views are best represented by dualists and agent-causalists like Richard Swinburne, *Mind, Brain and Free Will* (Oxford: Oxford University Press, 2013) and William Hasker, *The Emergent Self* (Ithaca, NY: Cornell University Press, 1999).
In recent debates about free will, agent-causal views have made a significant comeback. See, e.g., Tim O'Connor, "Agent-Causal Theories of Freedom," in *The Oxford Handbook of Free Will*, ed. Robert Kane (2nd ed. New York, NY: Oxford University Press), 309–328.
24. Nancey Murphy and Warren Brown, *Did My Neurons Make Me Do It? Philosophical and Neurobiological Perspectives on Moral Responsibility and Free Will* (Oxford: Oxford University Press, 2007).
25. List, *Why Free Will Is Real*, 63–64.
26. *Ibid.*, 64.
27. *Ibid.*, 69–74.
28. J. T. Ismael, *How Physics Makes Us Free* (New York, NY: Oxford University Press, 2016).
29. J. T. Ismael, "On Being Someone", in *Surrounding Free Will: Philosophy, Psychology, Neuroscience*, ed. Alfred Mele (New York: Oxford University Press, 2015), 278.
30. *Ibid.*, 279.
31. *Ibid.*, 286.
32. John Searle, *Rationality in Action* (Cambridge, MA: The MIT Press, 2001), 61–96.
33. See, e.g., David Widerker and Michael McKenna, eds., *Moral Responsibility and Alternative Possibilities: Essays on the Importance of Alternative Possibilities* (Farnham: Ashgate, 2003).
34. Steven Horst, *Laws, Mind, and Free Will* (Cambridge: The MIT Press, 2011), 9.
35. Horst develops his pluralistic model further in *Cognitive Pluralism* (Cambridge: The MIT Press, 2016).
36. List distinguishes three notions of "able to act otherwise" (81–83): conditional, dispositional and modal. He wants to defend the third, the most demanding notion. According to the modal version of alternative possibilities, what matters is whether the agent has possible future trajectories available to her at the moment of choice.
37. List, *Why Free Will Is Real*, 92.
38. List 2019, 99. Many psychologists agree with List, see, e.g., Roy Baumeister, Cory Clark, and Jamie Luguri, "Free Will: Belief and Reality," in *Surrounding Free Will: Philosophy, Psychology, Neuroscience*, ed. Alfred Mele (New York, Oxford University Press, 2015), 50–51.

39. Neil Levy, *Consciousness and Moral Responsibility* (New York: Oxford University Press, 2014), 24.
40. Alfred Mele, *Effective Intentions: The Power of Conscious Will* (New York: Oxford University Press, 2009).
41. See, e.g., Maoz 2019. Uri Maoz et al., “Neural Precursors of Decisions that Matter – an ERP Study of Deliberate and Arbitrary Choice,” *eLife* (2019) doi:10.7554/eLife.39787.
42. Roy Baumeister, E. J. Masicampo, Kathleen D. Vohs, “Do Conscious Thoughts Cause Behavior?” *Annual Review of Psychology* 62:1 (2011), 351.
43. Levy, *Consciousness*, 78–79.
44. Mele, *Effective Intentions*, 135–136.
45. Jaegwon Kim, *Physicalism, or Something Near Enough* (Princeton: Princeton University Press, 2007).
46. List, *Why Free Will Is Real*, 124–129.
47. See, e.g., James Woodward, *Making Things Happen: A Theory of Causal Explanation* (New York: Oxford University Press, 2005).
48. List, *Why Free Will Is Real*, 130–131.
49. List is not the only one to suggest this kind solution to the exclusion argument. See, e.g., Panu Raatikainen, “Causation, Exclusion, and the Special Sciences,” *Erkenntnis* 73 (2010), 349–363.
50. List, *Why Free Will Is Real*, 138.
51. David Eford and David Worsley, “Critical Review of Eleonore Stump’s Wandering in Darkness: Narrative and the Problem of Suffering,” *The Philosophical Quarterly* 65:260 (2016): 547–558.

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